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Memo

date: January 22, 2009

to: RSC

from: D. Beavis and A. Zaltsman

subject: Stochastic Cooling and Radiation Issues

On Jan 9, 2009 A. Zaltsman and I discussed the stochastic cooling system for any potential radiation concerns. It does not appear that there are any immediate issues of concern. The cavities do not emit x-rays. A single cooler has 16 cavities, each of which is approximately four-inches long. The cavities are constructed in two halves with copper clad Al and have a beam hole 2 cm in diameter. The beam permit system requires that the cavities are fully withdrawn (split apart), approximately three inches apart, to allow injection.

The geometry in the tunnel was inspected for penetrations that might be impacted by large beam losses on the coolers. No penetrations of concern were found. The penetrations for the coolers were previously examined. The only open issue that needs addressing is the potential for chronic small losses on the coolers. Estimates of the potential losses should be made and possible results from the loss monitors should be given to the committee for review. This should be completed before the FY2009 run is over. (**CK-FY2009-RHIC-583**)

CC:

RSC RHIC File

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